



Complete and space-saving "Plug & Play" compressed-air cleaned filter unit with integrated fan to be used for air filtration from processes that form limited dust volumes (welding, cutting, grinding and similar).

Can be placed in the production room and filters extraction from up to 7 simultaneous welding places.

FL: Air volume: Up to 8,200m³/h
 Vacuum: Up to 5,000Pa
 Filter area: 26 - 168m²

Description filter unit

- Polluted air is led in through the lowest connection on unit side, wherein preseparator is integrated.
- Air is filtered through vertical-placed filter cartridge with internal filter core, which optimizes cleaning effect.
- Differential pressure controlled cleaning of filter cartridges through integrated compressed-air system incl. automatic after-cleaning for optimized regeneration of filter cartridges.
- Clean air is led out through connection in unit side.
- Dust is collected in dust container in unit bottom. Dust container mounted in Gram Quicklock-adjustable dust container suspension.

Description fan

Unit is above equipped with a fan type VE or RV, 3x400 VAC, 50 Hz, 2800 rpm. Both fans are equipped with closed fan wheel with backward-curved straight self-cleaning blades, static/dynamic balanced according to ISO 14694 (BV3 G 6.3). Fan delivers air in fan enclosure, where air noise is dampen by sound absorbing material, before it is led out through bolted-on connection.

Simple mounting, connection and operation

Unit delivered ready for use. Equipped with fork pockets and crane lifting points for easy transport and installation. Integrated motor starter and CEE-plug on front make connection quick and easy. Unit is also available for operation with external frequency converter. In that case motor is delivered with built-in thermo sensor. Compressed-air supply is connected on unit by Cejn-coupling incl. ø10mm hose nipple. Easily accessible differential pressure reading in digital display of filter control placed countersunk on unit front. Quicklock-adjustable dust container on 4 wheels ensures user-friendly dust container service.

Can be used for room ventilation/air cleaning and is available with W3-certificate

For cleaning of slightly polluted room air containing e.g. welding smoke Filterline FL52 and FL 104 can be delivered with mounted air distribution modules that effects extraction of polluted air in top and returning clean filtered air at floor level (recirculation). Filterline units with/without selected Airtower modules (PFL) are available with W3-certificate.



Automatic and compressed-air

Filter- and motor control supplied by CEE-plug on front. 5.5-6.0 bar dry compressed-air is connected by Cejn-coupling incl. ø10mm hose nipple.



Dust container

Quicklock-dust container system with 35L or 57L-dust container is placed behind bottom front door.



Easy filter replacement with limited dust generation

Cartridge replacement is performed by bayonet suspension, which is loosened from clean air chamber and inserted into sack.



Connections

Air is sucked in by lower connection and leaves unit by upper connection. Inlet connection can be mounted right/left.



Filters: • Filter cartridge ø325mm. Length: 660/1320mm

Filter control: • Differential pressure control type ECO-S with automatic after-cleaning. 230V AC (constant)
• Compressed-air: 5.5 - 6.0 bar dry compressed-air by cejn-coupling incl. ø10mm hose nipple
• Differential pressure can be seen in digital display, placed countersunk on front
• 1"-jet valves connected to central compressed-air tank in clean air chamber

Filter change: Cartridge replacement made easily and dust-reduced by filter bayonet suspension that is loosened from clean air chamber and inserted into sack. Access by front door.

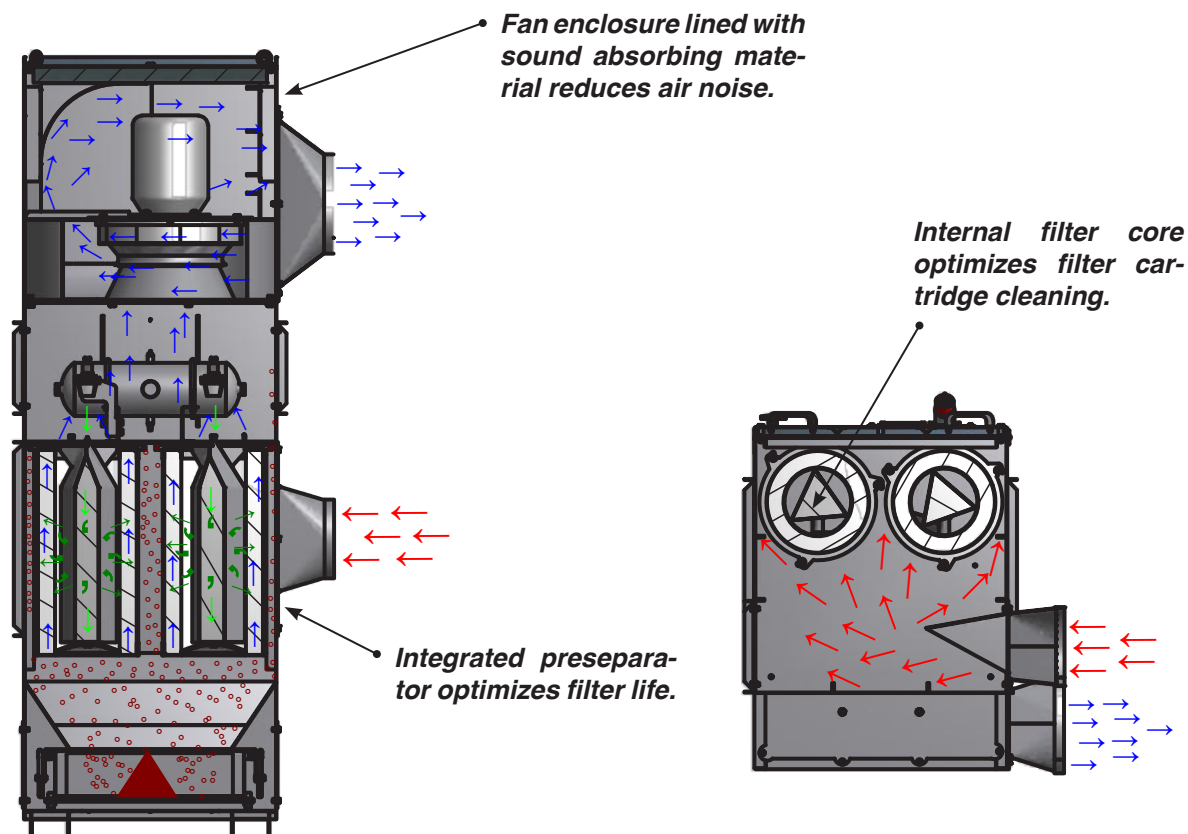
Filter material:

Standard	Material	Used for
G102	Polyester flake	Dry not-static loaded or hygroscopic dust particles > 0.2µm
Alternative		
G105	Cellulose/Polyester	Welding/soldering
G107	Cellulose/Polyester Nano	Smoke and soot particles
G113	Polyester flake with PFPT-coating, antistatic	Static-loaded or hygroscopic particles
G115A	Polyester flake with teflon membrane	Finer dust sorts, e.g. cutting smoke from plasma, flame and laser cutting
G116A	Polyester flake with teflon membrane, antistatic	Finer static-loaded dust sorts

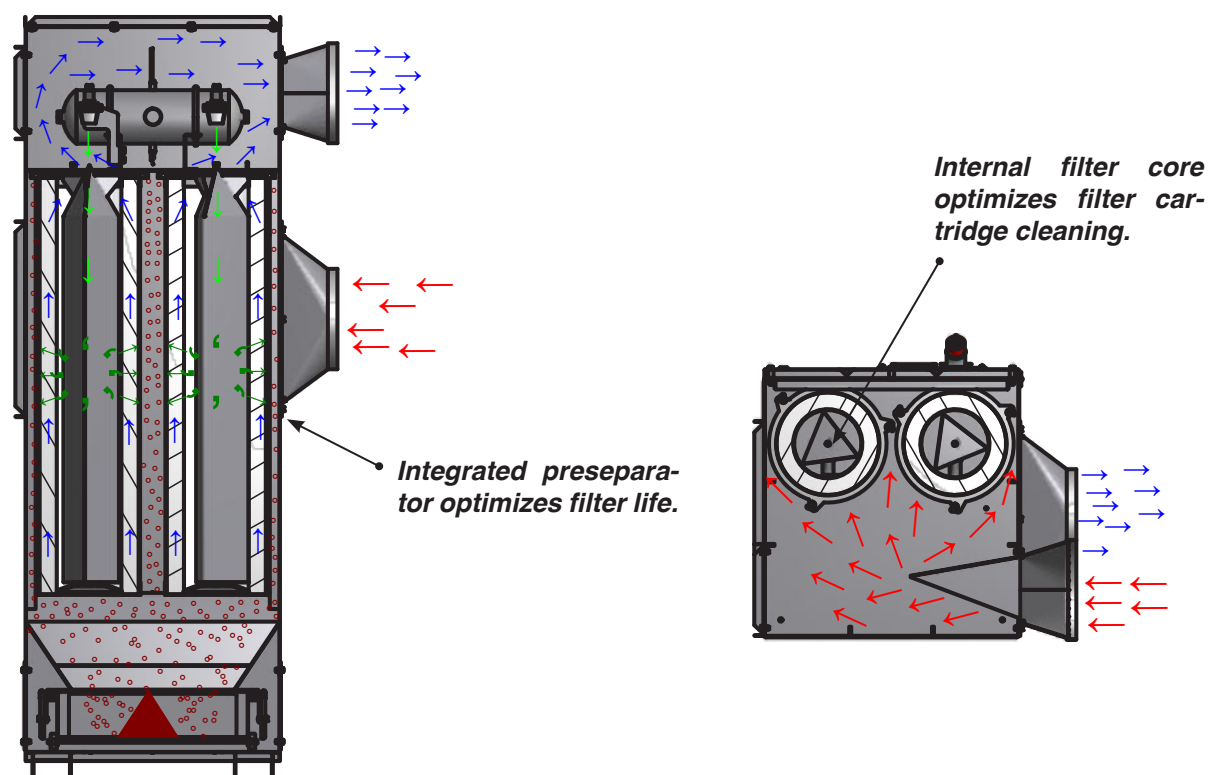


The filters meet demands for extraction degree for dust class M according to DIN EN 60335-2-69 Appendix AA (extraction degree > 99.9%).

Principle sketch for flow through Filterline type FL with built-in fan:



Principle sketch for flow through Filterline type FL without built-in fan:



Construction/surface

Filterline type FL is constructed according to:

- Machine directive 2006/42/EU
- EMC-directive 2014/30/EU
- Directive 2014/68/EU about pressure equipment
- Low voltage directive 2014/35/EU
- Harmonized standards: EN 13854, EN 4414, EN 12100, EN 60204-1, EN ISO 13857
- Further standards: ISO 3746

Filter cabinet is made in 2mm black steel plate
Surface powder enamelled RAL 5007/7011 structure

Further is available:

- Version in hot-galvanized, enamelled steel plates for outdoor mounting
- Backdraft damper type KTR for piping placement
- ½"-water separator with manometer and pressure reducing valve
- Remote start/stop by magnetic operated motor protection 230VAC-coil voltage
- Channel silencer for noise damping in outlet air
- Precoat unit type PCA (04 399 100)
- Precoat 11.5kg in sack (04 398 500)
- Unit with mounted Airtower air distribution modules (only FL 52/VE 5500 and FL 104/VE 7500) - see data sheet for Airtower modules type PFL
- Unit designed for filtration of welding smoke class W3 - see data sheet for W3-version

Photo:
Filterline type FL 26/VE 3000 in RAL 7035/7011
with channel silencer

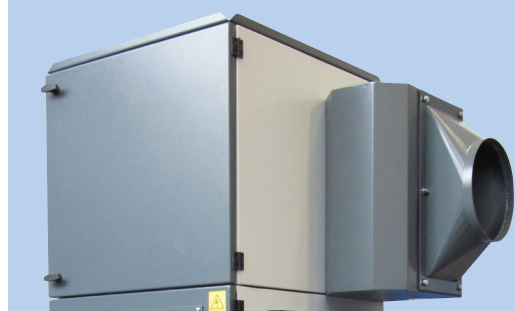


Photo: Airtower type PFL 52/VE 5500



Photo: Filterline type FL 104 without fan

Filterline type FL is available in the sizes as stated in the forms below.

Please, contact us for assistance in selecting the optimal unit taking into consideration air volume, dust type and volume, operation times etc.

Filterline type FL without built-in fan:

Type	Order no.	ΔP start/end ³⁾ [Pa]	Numbr filter car- tridges	Number jet valves	G102 filter area [m ²]	G105 filter area [m ²]	Com- pressed- air [L/min.]	Dust container [L]	Weight [kg]
FL 26	04 627 000	200/2000	2 ¹⁾	2	26	42	30	35	260
FL 52H	04 627 250	200/2000	2 ²⁾	2	52	84	30	35	300
FL 52	04 628 000	200/2000	4 ¹⁾	4	52	84	30	48	350
FL 104	04 629 000	200/2000	4 ²⁾	4	104	168	30	48	420

Filterline type FL with built-in fan:

Type	Order no.	ΔP start/end ³⁾ [Pa]	Numbr filter car- tridges	Number jet valves	G102 filter area [m ²]	G105 filter area [m ²]	Com- pressed- air [L/min.]	Dust con- tainer [L]	Weight [kg]
FL 26/VE 2200 ⁶⁾	04 618 000 ⁴⁾	200/2000	2 ¹⁾	2	26	42	30	35	385
FL 26/VE 3000 ⁶⁾	04 619 000 ⁴⁾	200/2000	2 ¹⁾	2	26	42	30	35	395
FL 26/RV 35/2S ⁶⁾	04 677 100 ⁵⁾	200/2000	2 ¹⁾	2	26	42	30	35	430
FL 26/RV 35/3 ⁶⁾	04 677 000 ⁵⁾	200/2000	2 ¹⁾	2	26	42	30	35	430
FL 52/VE 4000 ⁶⁾	04 620 000 ⁵⁾	200/2000	4 ¹⁾	4	52	84	30	48	480
FL 52/VE 5500 ⁶⁾	04 621 000 ⁵⁾	200/2000	4 ¹⁾	4	52	84	30	48	490
FL 52/RV 45 ⁷⁾	04 677 500 ⁵⁾	200/2000	4 ¹⁾	4	52	84	30	48	500
FL 52H/VE 4000 ⁶⁾	04 618 250 ⁵⁾	200/2000	2 ²⁾	2	52	84	30	35	420
FL 52H/VE 5500 ⁶⁾	04 618 500 ⁵⁾	200/2000	2 ²⁾	2	52	84	30	35	430
FL 52H/RV 45 ⁷⁾	04 678 050 ⁵⁾	200/2000	2 ²⁾	2	52	84	30	35	566
FL 104/VE 5500 ⁶⁾	04 622 000 ⁵⁾	200/2000	4 ²⁾	4	104	168	30	48	540
FL 104/VE 7500 ⁷⁾	04 623 000 ⁵⁾	200/2000	4 ²⁾	4	104	168	30	48	550
FL 104/RV 45 ⁷⁾	04 678 100 ⁵⁾	200/2000	4 ²⁾	4	104	168	30	48	560
FL 104/RV 50 ⁷⁾	04 678 000 ⁵⁾	200/2000	4 ²⁾	4	104	168	30	48	566

¹⁾ Filter cartridge $\phi 325 \times 660\text{mm}/\phi 13.5\text{mm}$, 13m², G102(08 128 100)

²⁾ Filter cartridge $\phi 325 \times 1320\text{mm}/\phi 13.5\text{mm}$, 26m², G102 (08 129 000)

³⁾ Pressure drop stated over filter cartridge

⁴⁾ Supply plug 16A

⁵⁾ Supply plug 32A

⁶⁾ Delivered with hand-operated motor protection

⁷⁾ Delivered with star-delta-starter

Consumption data for Filterline type FL with built-in fan:

Type	Volt [V]	[rpm.]	[kW]	Rated current (Amp)	Start current [I _L /I _N]
VE 2200-FL-C2	3x400	2800	2.20	■	■
VE 3000-FL-C2	3x400	2800	3.00	■	■
VE 4000-FL-C2	3x400	2800	4.00	■	■
VE 5500-FL-C2	3x400	2800	5.50	■	■
VE 7500-FL-C2	3x400	2800	7.50	■	■
RV 35/2S-FL-C2	3x400	2910	5.50 ⁸⁾	■	■
RV 35/3-FL-C2	3x400	2910	5.50 ⁸⁾	■	■
RV 45-FL-C2	3x400	2800	7.50	■	■
RV 50-FL-C2	3x400	2930	11.00 ⁸⁾	■	■

⁸⁾ Increased efficiency

Motor data $\geq 0.75\text{kW}$, 3x400V, according to IE3-motors.

■ See section "General information" conc. electro motors



Filterline type FL with fan prepared for operation with frequency converter/external motor starter:

Type	Order no.	ΔP start/end ³⁾ [Pa]	Numbr filter car- tridges	Number jet valves	G102 filter area [m²]	G105 filter area [m²]	Copressed air [L/min.]	Dust con- tainer [L]	Weight [kg]
FL 26/VE 2200	04 618 150	200/2000	2 ¹⁾	2	26	42	30	35	385
FL 26/VE 3000	04 619 150	200/2000	2 ¹⁾	2	26	42	30	35	395
FL 26/RV 35/2	04 677 250	200/2000	2 ¹⁾	2	26	42	30	35	417
FL 26/RV 35/3	04 677 150	200/2000	2 ¹⁾	2	26	42	30	35	430
FL 52/VE 4000	04 620 150	200/2000	4 ¹⁾	4	52	84	30	48	480
FL 52/VE 5500	04 621 150	200/2000	4 ¹⁾	4	52	84	30	48	490
FL 52/RV 45	04 677 650	200/2000	4 ¹⁾	4	52	84	30	48	500
FL 52H/VE 4000	04 618 400	200/2000	2 ²⁾	2	52	84	30	35	420
FL 52H/VE 5500	04 618 650	200/2000	2 ²⁾	2	52	84	30	35	430
FL 52H/RV 35/2	04 677 350	200/2000	2 ²⁾	2	52	84	30	35	420
FL 52H/RV 35/3	04 677 450	200/2000	2 ²⁾	2	52	84	30	35	430
FL 52H/RV 45	04 678 200	200/2000	2 ²⁾	2	52	84	30	35	566
FL 104/VE 5500	04 622 150	200/2000	4 ²⁾	4	104	168	30	48	540
FL 104/VE 7500	04 623 150	200/2000	4 ²⁾	4	104	168	30	48	550
FL 104/RV 45	04 678 250	200/2000	4 ²⁾	4	104	168	30	48	560
FL 104/RV 50	04 678 150	200/2000	4 ²⁾	4	104	168	30	48	566

¹⁾ Filter cartridge $\phi 325 \times 660\text{mm}/\phi 13.5\text{mm}$, 13m², G102(08 128 100)

²⁾ Filter cartridge $\phi 325 \times 1320\text{mm}/\phi 13.5\text{mm}$, 26m², G102 (08 129 000)

³⁾ Pressure drop stated over filter cartridge

Consumption data for Filterline type FL with fan prepared for operation with frequency converter/external motor starter:

Type ⁴⁾	Volt [V]	[rpm.]	[kW]	Rated current (Amp)	Start current [I _L /I _N]
VE 2200-FL-C2	3x400	2800	2,20	■	■
VE 3000-FL-C2	3x400	2800	3,00	■	■
VE 4000-FL-C2	3x400	2800	4,00	■	■
VE 5500-FL-C2	3x400	2800	5,50	■	■
VE 7500-FL-C2	3x400	2800	7,50	■	■
RVH 35/2-FL-C2	3x400	2800	4,00	■	■
RV 35/3-FL-C2	3x400	2910	5,50 ⁵⁾	■	■
RV 45-FL-C2	3x400	2800	7,50	■	■
RV 50-FL-C2	3x400	2930	11,00 ⁵⁾	■	■

⁴⁾ Delivered incl. thermo sensor

Motor data $\geq 0.75\text{kW}$, 3x400V, according to IE3-motors.

⁵⁾ Increased efficiency

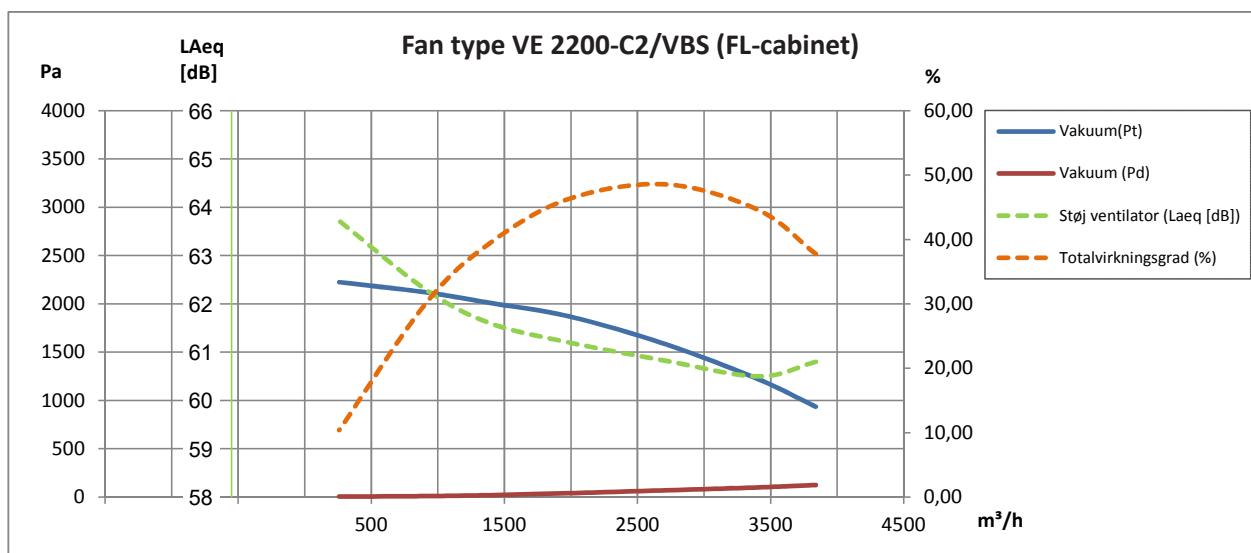
■ See section "General information" conc. electro motors

Other technical data:

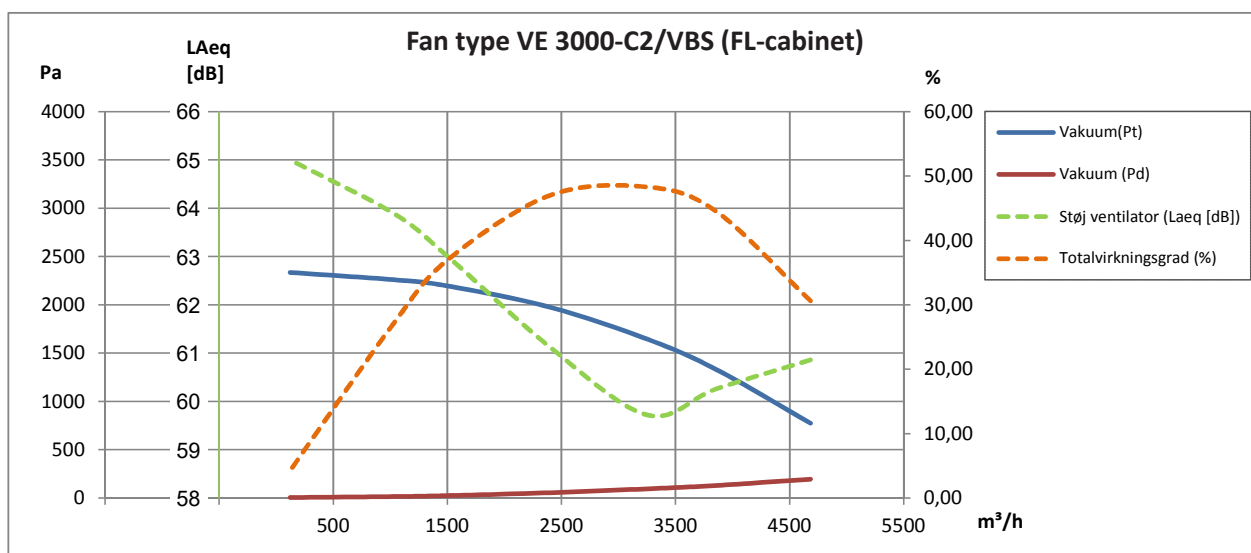
Fan*	Achieved efficiency	Measu- rement category	Efficiency category	VSD	Production year	Manu- facturer page	Modul number/ type	Rated motor power input, flow rate and pressure			Rpm.	Specific ratio	Dis- posal page	Environ- ment page	Mounting measure- ment page
								kW	m³/h	Pa (Ps)					
VE 2200-FL-C2	61,5	D	Total	No	CE-mark	A15	03 384 000	2,56	3257	1705	2853	1,02	A15	A15	A15
VE 3000-FL-C2	59,9	D	Total	No	CE-mark	A15	03 386 000	2,99	3596	1760	2929	1,02	A15	A15	A15
VE 4000-FL-C2	55,7	D	Total	No	CE-mark	A15	03 388 000	4,23	4668	1780	2929	1,02	A15	A15	A15
VE 5500-FL-C2	58,0	D	Total	No	CE-mark	A15	03 390 000	6,07	4741	2620	2936	1,03	A15	A15	A15
VE 7500-FL-C2	57,0	D	Total	No	CE-mark	A15	03 392 000	5,95	4383	2735	2951	1,03	A15	A15	A15
RV 35/2-FL-C2	51,3	D	Total	No	CE-mark	A15	03 401 700	4,40	2156	3780	2925	1,04	A15	A15	A15
RV 35/3-FL-C2	51,3	D	Total	No	CE-mark	A15	03 402 000	5,04	2700	4085	2945	1,04	A15	A15	A15
RV 45-FL-C2	64,3	D	Total	No	CE-mark	A15	03 406 400	8,08	5432	3380	2933	1,03	A15	A15	A15
RV 50-FL-C2	68,2	D	Total	No	CE-mark	A15	03 410 400	9,84	6561	3610	2942	1,04	A15	A15	A15

* None of fans are subject to ERP 2013/2015 according to EU327/2011

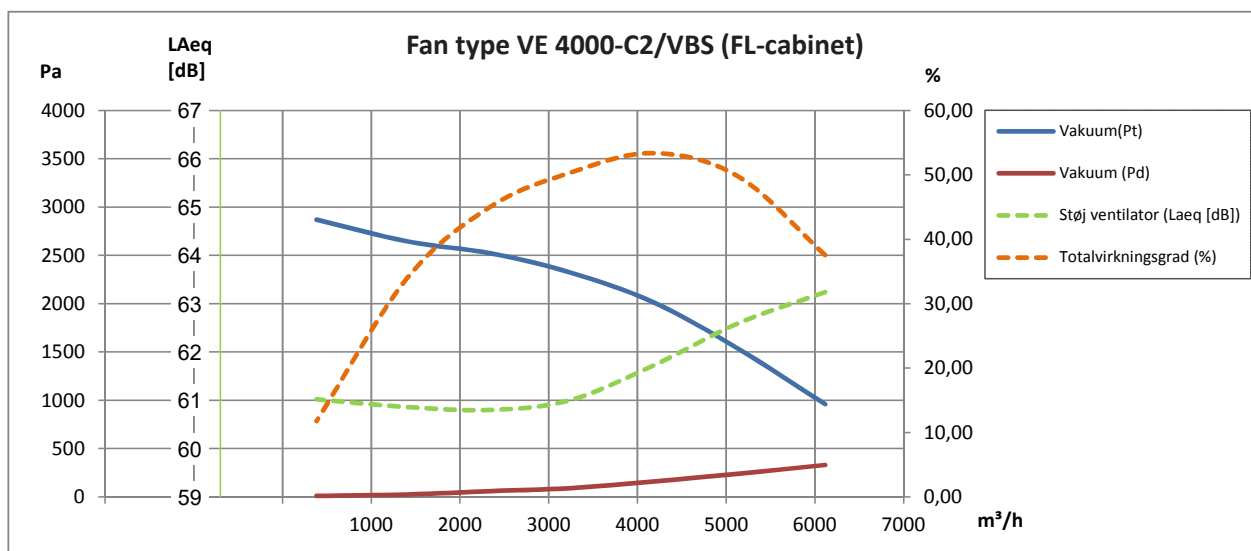
2-pole:



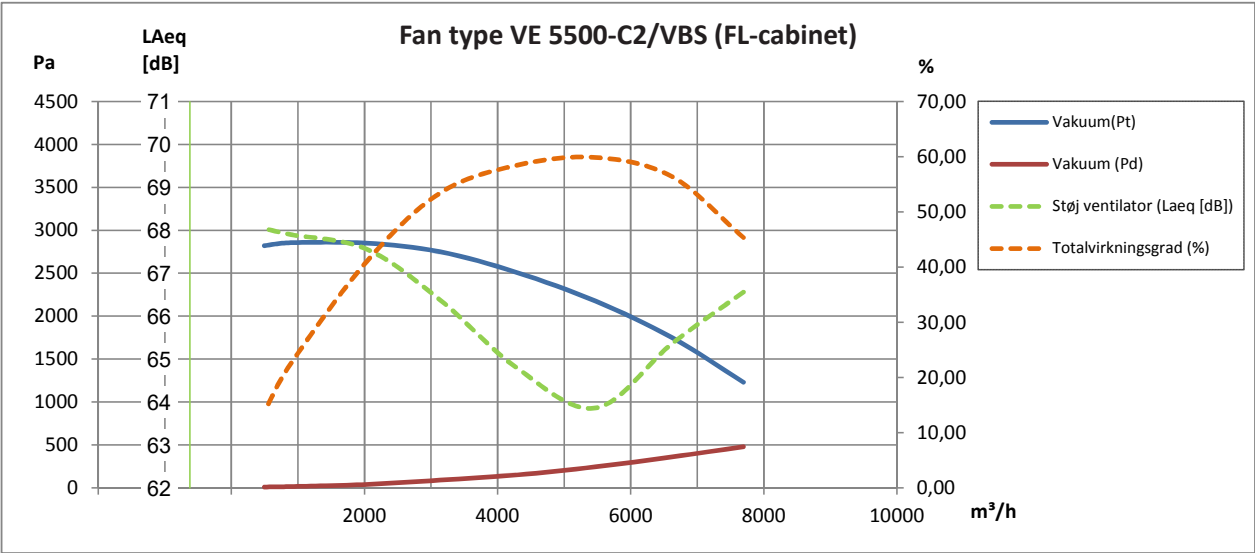
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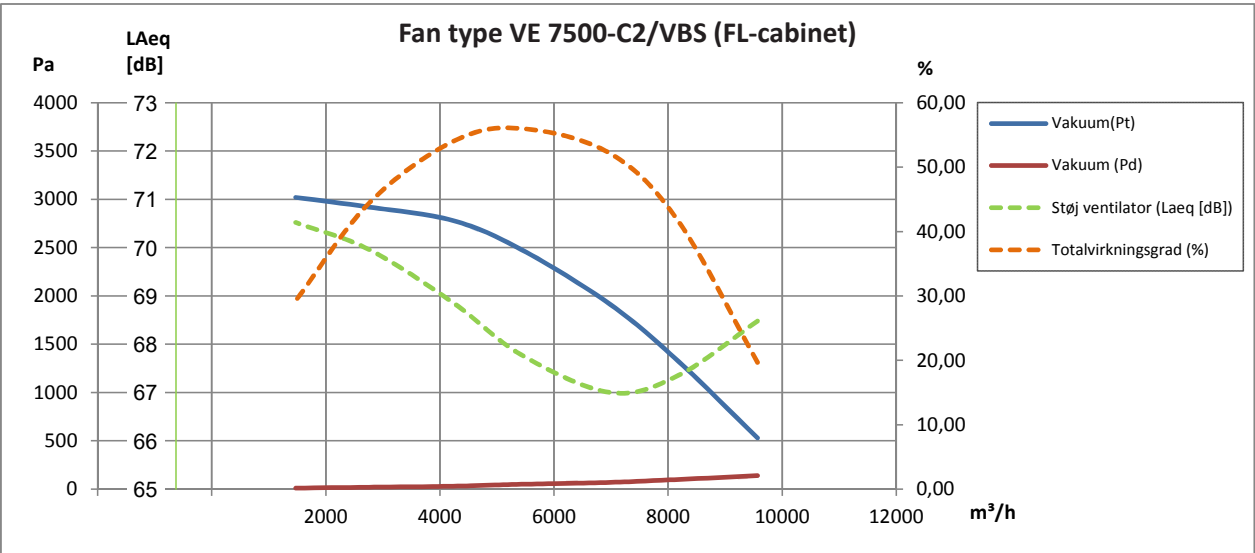
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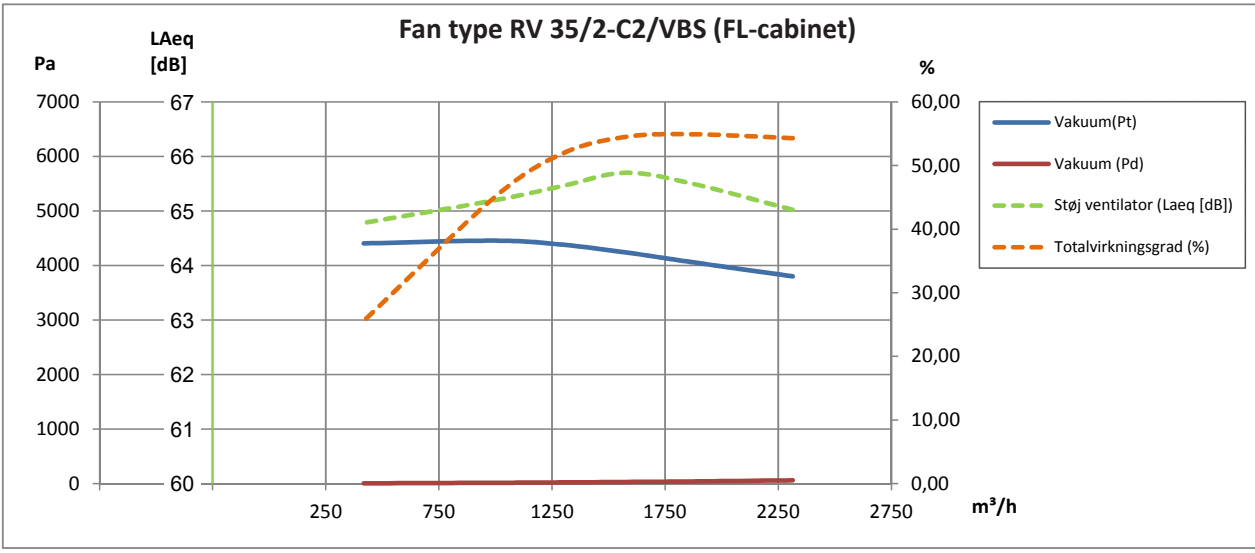
2-pole:



2-pole:

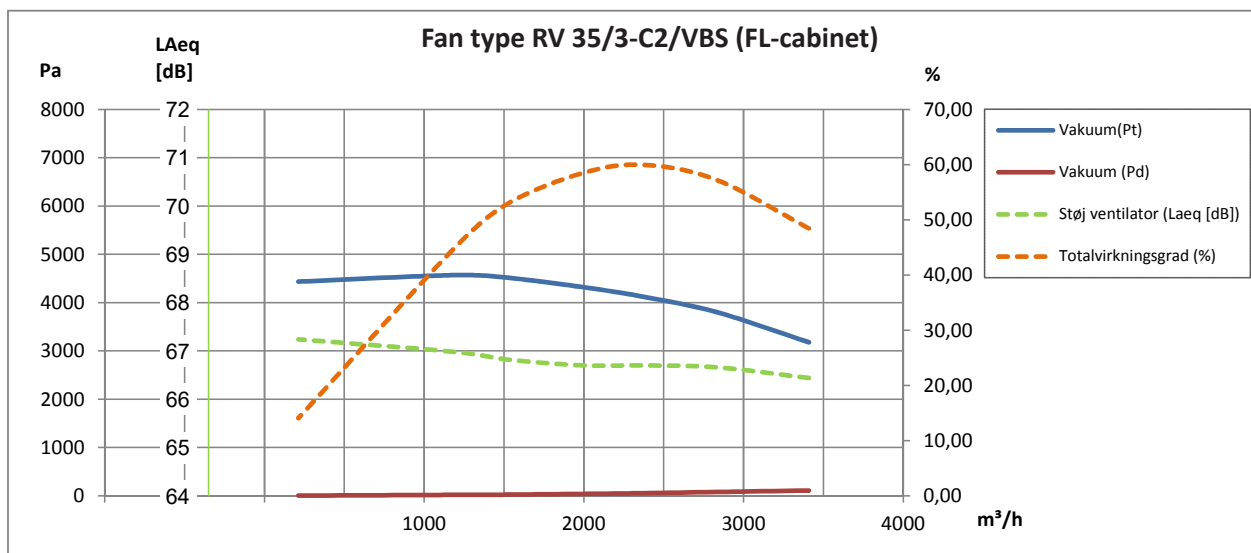


2-pole:

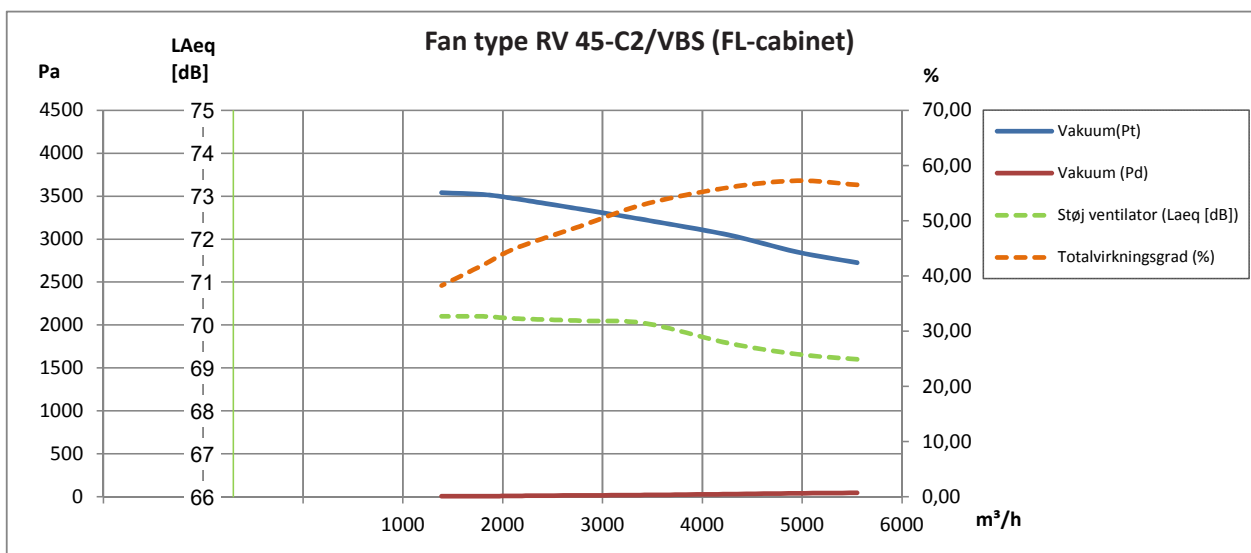


Rev. 21.21 Data is subject to alterations

2-pole:



2-pole:



2-pole:

